

CLAIMS

1. A method comprising:

generating a compressed medical image from a source medical image at a first location using a lossy compression operation;

transmitting the compressed medical image to a remote view station at a second location for display;

decompressing the compressed image file at the remote view station;

selecting a region of the decompressed medical image at the second location; and

at the first location, applying image analysis operations to a region of the source medical image corresponding to the selected region of the decompressed medical image.

2. The method of claim 1, wherein transmitting the compressed medical image includes transmitting the compressed medical image over a global packet-switched network.

3. The method of claim 1, further comprising:

transmitting region information separate from the compressed medical image from the remote view station to an

image server at the first location, wherein the region information defines the selected region of the displayed medical image.

4. The method of claim 3, wherein the region information comprises pixel coordinates.

5. The method of claim 3, further comprising:
at the first location, receiving from the remote view station a request for improved resolution of the selected region;

determining image data to send to the remote view station to provide improved resolution of the selected region; and

sending said image data to the remote view station.

6. The method of claim 5, wherein said determining the image data comprises:

identifying pixel data in the source image corresponding to the selected region in the displayed medical image.

7. The method of claim 5, wherein said determining the image data comprises:

calculating image data lost in the lossy compression operation.

8. The method of claim 1, wherein applying the image analysis operations includes outputting a score and communicating the score to the remote view station for display.

9. A system comprising:

an image server at a first location to store a source medical image and to generate a compressed medical image from the source medical image using a lossy compression operation;

a remote view station at a second location communicatively coupled to the image server to receive the compressed medical image, said remote view station including

a decoder operative to decompress the compressed medical image to generate a decompressed medical image,

a display to display the decompressed medical image, and

an input device to enable selection of a region of the decompressed medical image; and

wherein the image server is operative to perform an image analysis operation on a region of the source medical image that corresponds to a selected region of the decompressed medical image.

10. The system of claim 9, the remote view station is communicatively coupled to the image server via a global packet-switched network.

11. The system of claim 9, wherein the remote view station is operative to transmit region information separate from the compressed medical to the image server, wherein the region information defines the selected region of the decompressed medical image.

12. The system of claim 11, wherein the region information comprises pixel coordinates.

13. The system of claim 11, wherein the image server is operative to:

receive from the remote view station a request for improved resolution of the selected region;

determine image data to send to the remote view station to provide improved resolution of the selected region; and

send said image data to the remote view station.

14. The system of claim 13, wherein said determining the image data comprises:

identifying pixel data in the source image corresponding to the selected region in the displayed medical image.

15. The system of claim 13, wherein said determining the image data comprises:

calculating image data lost in the lossy compression operation.

16 . The system of claim 9, wherein the image server is further operative to:

output a score; and

communicate the score to the remote view station for display.

17. A computer program comprising:

generating a compressed medical image from a source medical image at a first location using a lossy compression operation;

transmitting the compressed medical image to a remote view station at a second location for display;

decompressing the compressed image file at the remote view station;

selecting a region of the decompressed medical image at the second location; and

at the first location, applying image analysis operations to a region of the source medical image corresponding to the selected region of the decompressed medical image.

18. The computer program of claim 17, wherein transmitting the compressed medical image includes transmitting the compressed medical image over a global packet-switched network.

19. The computer program of claim 17, further comprising:

transmitting region information separate from the compressed medical image from the remote view station to an

image server at the first location, wherein the region information defines the selected region of the displayed medical image.

20. The computer program of claim 19, wherein the region information comprises pixel coordinates.

21. The computer program of claim 19, further comprising:

at the first location, receiving from the remote view station a request for improved resolution of the selected region;

determining image data to send to the remote view station to provide improved resolution of the selected region; and

sending said image data to the remote view station.

22. The computer program of claim 21, wherein said determining the image data comprises:

identifying pixel data in the source image corresponding to the selected region in the displayed medical image.

23. The computer program of claim 21, wherein said determining the image data comprises:

calculating image data lost in the lossy compression operation.

24. The computer program of claim 17, wherein applying the image analysis operations includes outputting a score and communicating the score to the remote view station for display.